

AMENDMENTS TO THE CLAIMS:

Please cancel claims 1-14 without prejudice or disclaimer and add new claims 15-27 as follows:

Claim 15 (new): A porous insulating film consisting essentially of a highly heat resistant polyimide resin film having a fine porous structure wherein:

a) fine continuous channels reaching to both surfaces of the film in a nonlinear fashion have a mean pore size of $0.01 - 2 \mu\text{m}$ in the center and both surfaces of the film and a porosity of 15 – 80%;

b) the polyimide resin film consists essentially of a polyimide obtained from the combination of at least one tetracarboxylic acid component and a diamine component ;
and

c) the film has a thickness of $5 - 150 \mu\text{m}$ and a resistance to passage of air of from 30 sec/100 cc to 2000 sec/100 cc.

Claim 16 (new): The porous insulating film according to claim 15, wherein the mean pore size is $0.05 - 1 \mu\text{m}$.

Claim 17 (new): The porous insulating film according to claim 15, wherein the porosity is 30 – 80%.

Claim 18 (new): The porous insulating film according to claim 15, wherein the thickness is $5\text{-}100 \mu\text{m}$.

Claim 19 (new): The porous insulating film according to claim 15, which is fabricated by a film casting method.

Claim 20 (new): The porous insulating film according to claim 15, which has a dielectric constant of no greater than 2.5.

Claim 21 (new): A porous insulating film consisting essentially of a highly heat resistant polyimide resin film having a fine porous structure wherein:

a) fine continuous channels reaching to both surfaces of the film in a nonlinear fashion have a mean pore size of $0.01 - 2 \mu\text{m}$ in the center and both surfaces of the film; and

b) the polyimide resin film consists essentially of a polyimide obtained from the combination of at least one tetracarboxylic acid component and a diamine component and has

(i) a thickness of $5 - 100 \mu\text{m}$,

(ii) a resistance to passage of air of from 30 sec/100 cc to 2000 sec/100 cc,

(iii) a heat resistance temperature of at least 200°C and

(iv) a heat shrinkage of greater than $\pm 1\%$ at 105°C .

Claim 22 (new): A battery separator comprising a porous insulating film according to claim 21.

Claim 23 (new): The porous insulating film according to claim 15 or 21, wherein the tetracarboxylic acid component is selected from a biphenyltetracarboxylic dianhydride, pyromellitic dianhydride and a benzophenonetetracarboxylic dianhydride.

Claim 24 (new): The porous insulating film according to claim 15 or 21, wherein the diamine component is selected from a phenylenediamine or a diaminodiphenylether.

Claim 25 (new): The porous insulating film according to claim 15, wherein the pores in the porous structure are arranged in the film substantially parallel to the film surfaces.

Claim 26 (new): The porous insulating film according to claim 23, wherein the biphenyltetracarboxylic dianhydride is 3,3',4,4'-biphenyltetracarboxylic dianhydride.

Claim 27 (new): The porous insulating film according to claim 21, wherein the pores in the porous structure are arranged in the film substantially parallel to the film surfaces.